

**REMARKS/ARGUMENTS**

Before this Amendment, claims 14-26 were pending.

With this Amendment, independent claims 14, 17, 19, and 21 have been amended; claim 16 has been canceled; and new claims 27-37 have been added. Support for the claim amendments, and for the new claims, may be found in the specification at least at paragraphs [09], [14] to [16], [31] to [34], and [80].

In the Office Action, the Examiner rejected claim 16 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement, and under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Further, the Examiner objected to the drawings under 37 CFR §1.83(a) regarding the non-adjusting leg of at least one of the relay stations, presumably in reference to claim 16.

Further, the Examiner rejected claim 15 under 35 U.S.C. §112, second paragraph as having insufficient antecedent basis for the limitation "the optical intensity parameters."

In addition, the Examiner rejected claims 14-15 and 17-22 under 35 U.S.C. §102(e) as being anticipated by Hainberger (U.S. Patent No. 6,856,453). Claims 23-26 were rejected under 35 U.S.C. §103(a) as being unpatentable over Hainberger in view of Chbat (U.S. Patent No. 6,810,214).

Independent claims 14, 17, 19, and 21

Applicants hereby amend independent claims 14, 17, 19, and 21 to more clearly distinguish the claimed invention. In particular, the independent claims have been amended to recite, in one form or another, that optical intensity parameters and gain tilt parameters are calculated based on a deviation of optical signal-to-noise ratio (OSNR) degradation.

As noted in the Specification at least at paragraphs [31] to [34], intensity of optical signals in an optical transmission system may be adjusted to account for signal-to-noise

variance caused by Stimulated Raman Scattering (SRS) of optical signals to be received at the receiving end of the optical transmission system.

Accordingly, Applicants submit that the amended independent claims are patentable over the cited art. Hainberger does not appear to teach or suggest the features of the amended claims. In particular, Hainberger appears silent on the feature of the instant claims that gain tilt parameters and optical intensity parameters are based on a deviation of OSNR degradation. The Chbat reference does not appear to cure this deficiency of Hainberger.

Therefore, Applicants submit that the amended claims are in a condition for allowance, and request action to that end at the earliest convenience.

#### Dependent Claims

##### Claim 15

At page 3 of the Office Action, the Examiner rejected claim 15 under 35 U.S.C. §112, second paragraph as having insufficient antecedent basis for the limitation "the optical intensity parameters."

However, the "optical intensity parameters" of claim 15 are explicitly recited in claim 14. Claim 14 recites, *inter alia*,

amplifying optical signals comprising each band in accordance with predetermined optical intensity parameters and adjusting a gain tilt of each band in accordance with predetermined gain tilt parameters

Claim 15 recites,

wherein the optical intensity parameters and the gain tilt parameters are determined based on transmission characteristics of all spans of optical fiber disposed between the sending station, the relay stations, and the receiving station.

Because the "optical intensity parameters" of claim 15 are explicitly recited in claim 14, Applicants respectfully request the removal of the rejection of claim 15. In view of amendments to claim 14, Applicants submit that claim 15 is patentable over the cited art.

Claim 16

Because claim 16 is hereby canceled, Applicants submit that the rejection of claim 16, and the objection to the drawings, are moot.

Claims 15, 18, 20, and 22-37

Claims 15, 18, 20, and 22-37 inherit all limitations of the amended independent claims 14, 17, 19, and 21, and recite further limitations. As noted above, independent claims 14, 17, 19, and 21 recite features not taught or suggested in the Hainberger and/or Chbat references. Therefore, Applicants respectfully submit that the dependent claims 15, 18, 20, and 22-37 are patentable.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

/ Eric J. Worthington

Eric J. Worthington  
Reg. No. 50,910

TOWNSEND and TOWNSEND and CREW LLP  
Two Embarcadero Center, Eighth Floor  
San Francisco, California 94111-3834  
Tel: 650-326-2400  
Fax: 650-326-2422  
Attachments  
EJW:am  
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